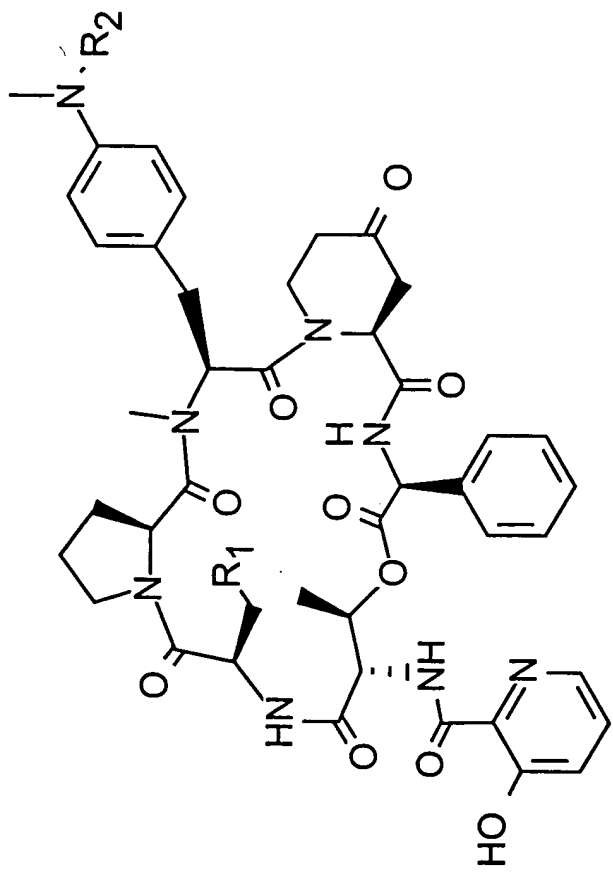


FIG. 1



R₁=Me, R₂=H

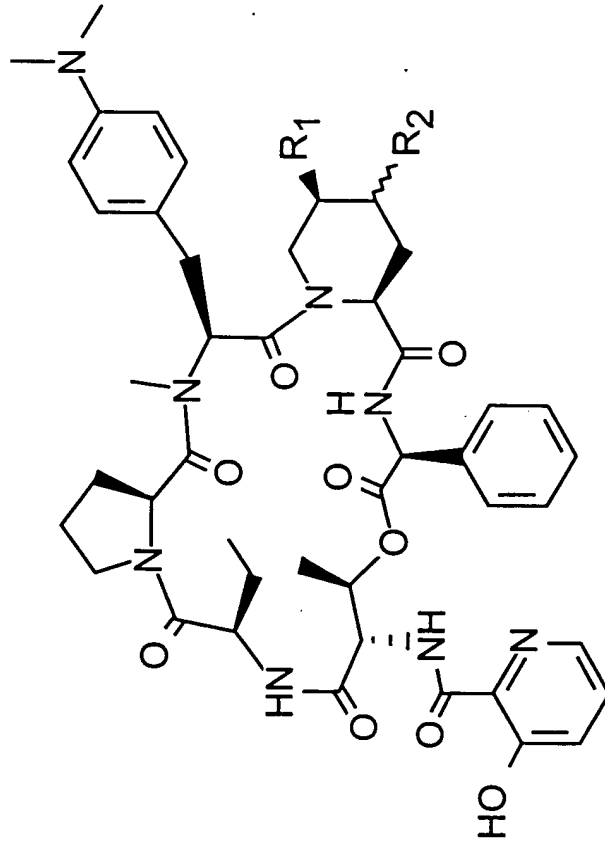
P1B

R₁=H, R₂=Me

P1C

R₁=H, R₂=H

VERNAMYCIN B₈



R₁=OH, R₂=

=O

P1D

R₁=H, R₂=H

P1E

R₁=H, R₂=

OH

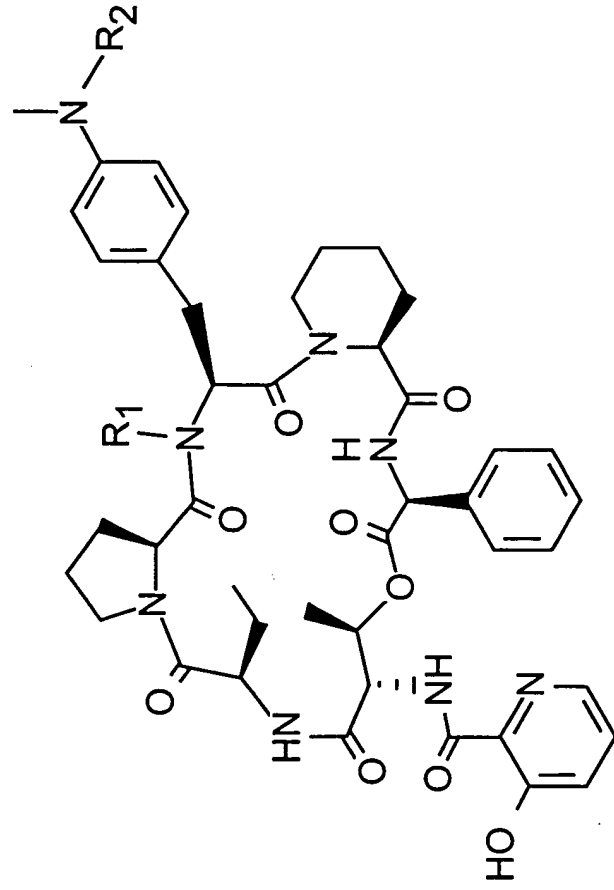
P1F

R₁=H, R₂=

OH

P1G

FIG. 2



R₁=H, R₂=Me PI_H

R₁=H, R₂=H PI_I

PI_B = PRISTINAMYCIN I_B, VERNAMYCIN B_β, OSTEOGRYCIN B₂

PI_C = PRISTINAMYCIN I_C, VERNAMYCIN B_γ, OSTEOGRYCIN B₁

FIG. 2 CONT.

$$R_1=H, R_2=Me$$
$$R_1=H, R_2=H$$

$P|_B = \text{PRISTINAMYCIN } I_B, \text{ VERNAMYCIN } B\beta, \text{ OSTEOGRYCIN } B_2$

PI_C = PRISTINAMYCIN I_C, VERNAMYCIN B_γ, OSTEOGRYCIN B₁

FIG. 2 CONT.

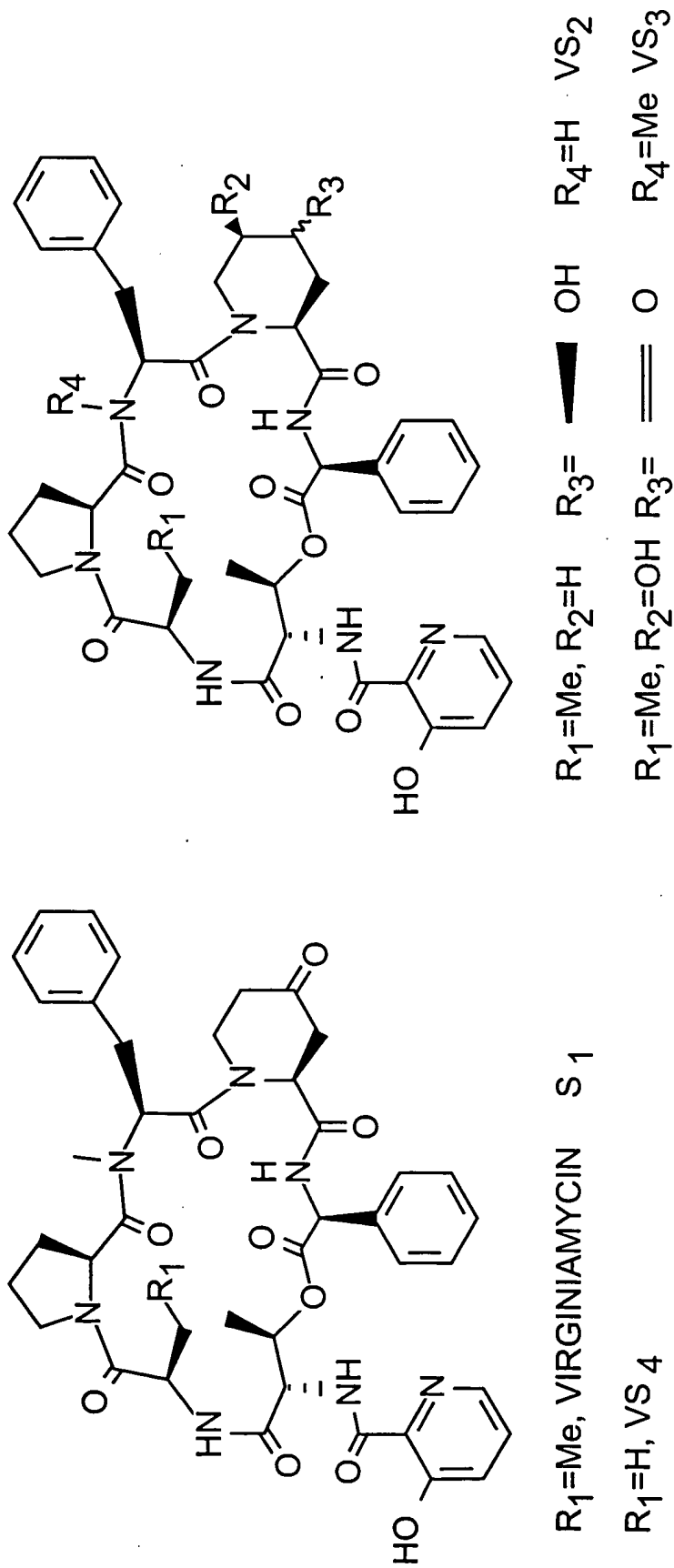
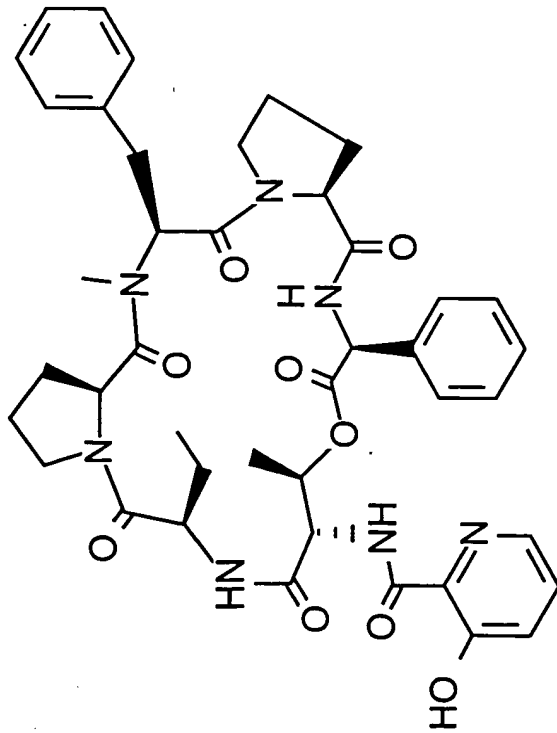
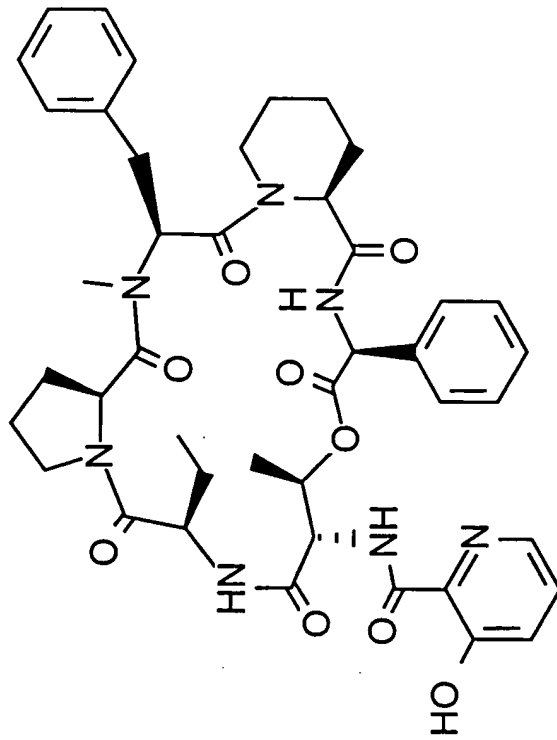


FIG. 3



PATRICIN A



PATRICIN B

FIG. 3 CONT.

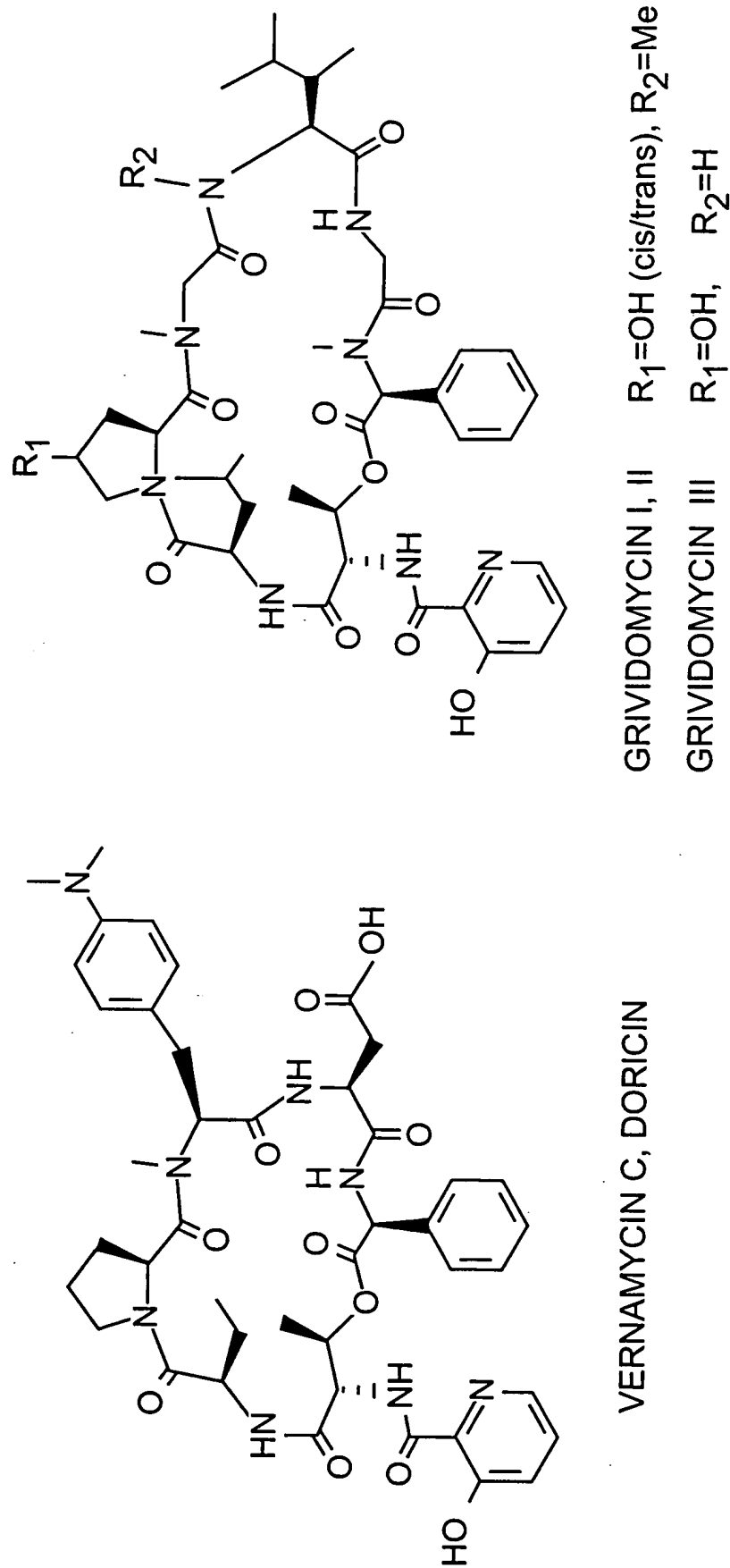
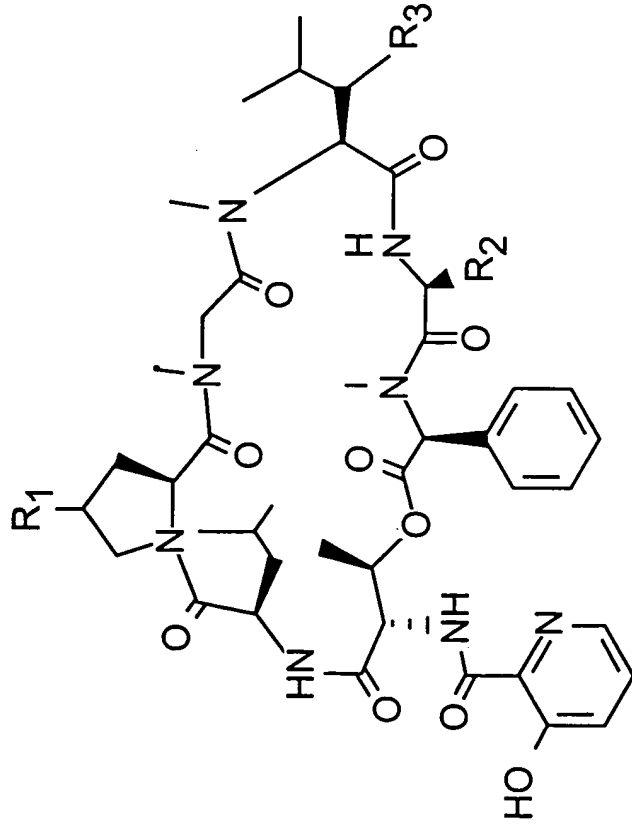


FIG. 3 CONT-2



ETAMYCIN A (neoviridogrisein IV, viridogrisein)

R₁=OH(cis), R₂=Me

NEOVIRIDOGRISEIN I, R₁=H, R₂=Et, R₃=Me

II, R₁=H, R₂=Me, R₃=Me

III, R₁=OH, R₂=Et, R₃=Me

Cl-c, R₁=Cl (cis), R₂=Me, R₃=Me

Cl-t, R₁=Cl (trans), R₂=Me, R₃=Me

VIRIDOGRISEIN II, R₁=OH, R₂=Et, R₃=H

FIG. 3 CONT-3

Diagram illustrating the structure of the *pap* operon. The operon consists of four genes: *papA/orf1*, *papC/orf2*, *papB/orf3*, and *papM/orf4*. The genes are represented by arrows indicating their orientation. *papA/orf1* is a white arrow pointing right. *papC/orf2* is a hatched arrow pointing left. *papB/orf3* is a hatched arrow pointing right. *papM/orf4* is a white box with a right-pointing arrow. Restriction sites are indicated by lines: PstI at the left end of *papA/orf1*, XhoI between *papA/orf1* and *papC/orf2*, PstI between *papC/orf2* and *papB/orf3*, XhoI between *papB/orf3* and *papM/orf4*, and XhoI at the right end of *papM/orf4*.

FIG. 5

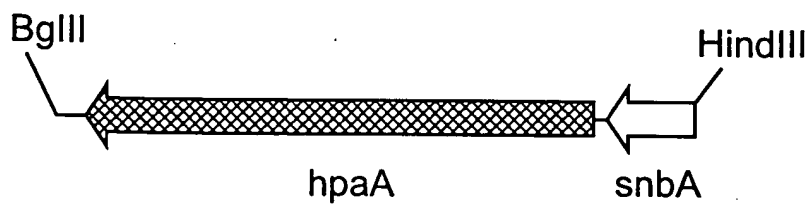


FIG. 6

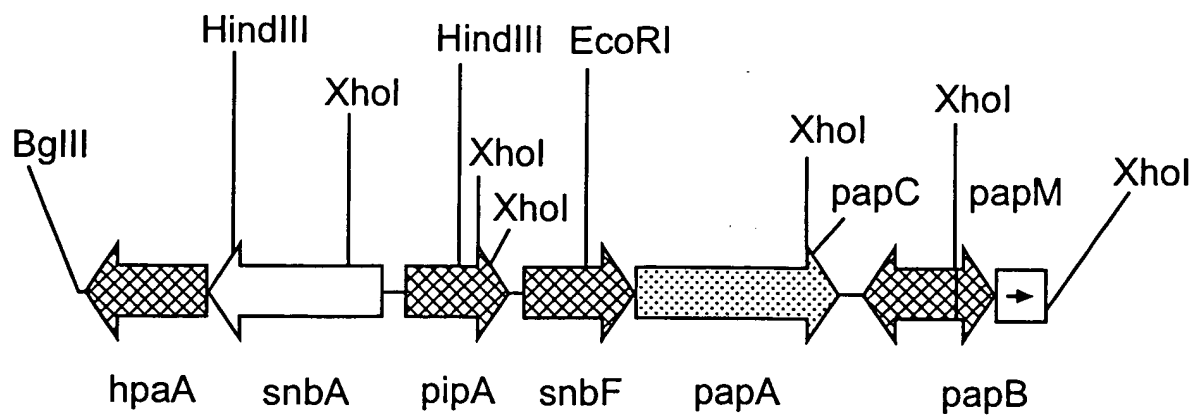


FIG. 7

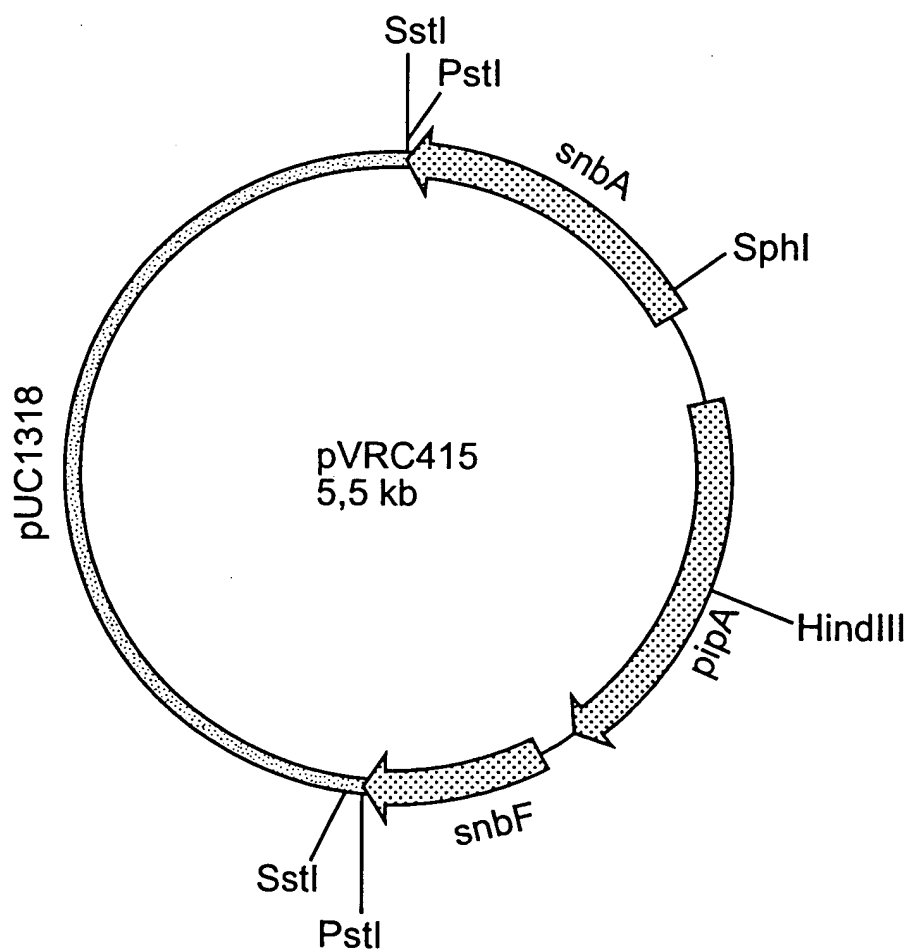


FIG. 8

FIG. 9

A circular map of the pVRC411 plasmid, which is 9.8 kb in size. The map shows the following features:

- pdhS**: A shaded segment representing the pyruvate dehydrogenase subunit S gene.
- snbA**: A dotted segment representing the *snbA* gene, with an arrow indicating its direction of transcription.
- hpvA**: A small segment representing the *hpvA* gene.
- Restriction Sites**:
 - EcoRI**: Located at the top of the circle.
 - SphI**: Located near the top, between EcoRI and snbA.
 - HindIII**: Located on the right side of the circle, between snbA and hpvA.
 - PflmI**: Located on the right side of the circle, between hpvA and the bottom.
 - HindIII** and **SphI**: Located at the bottom of the circle.

FIG. 10

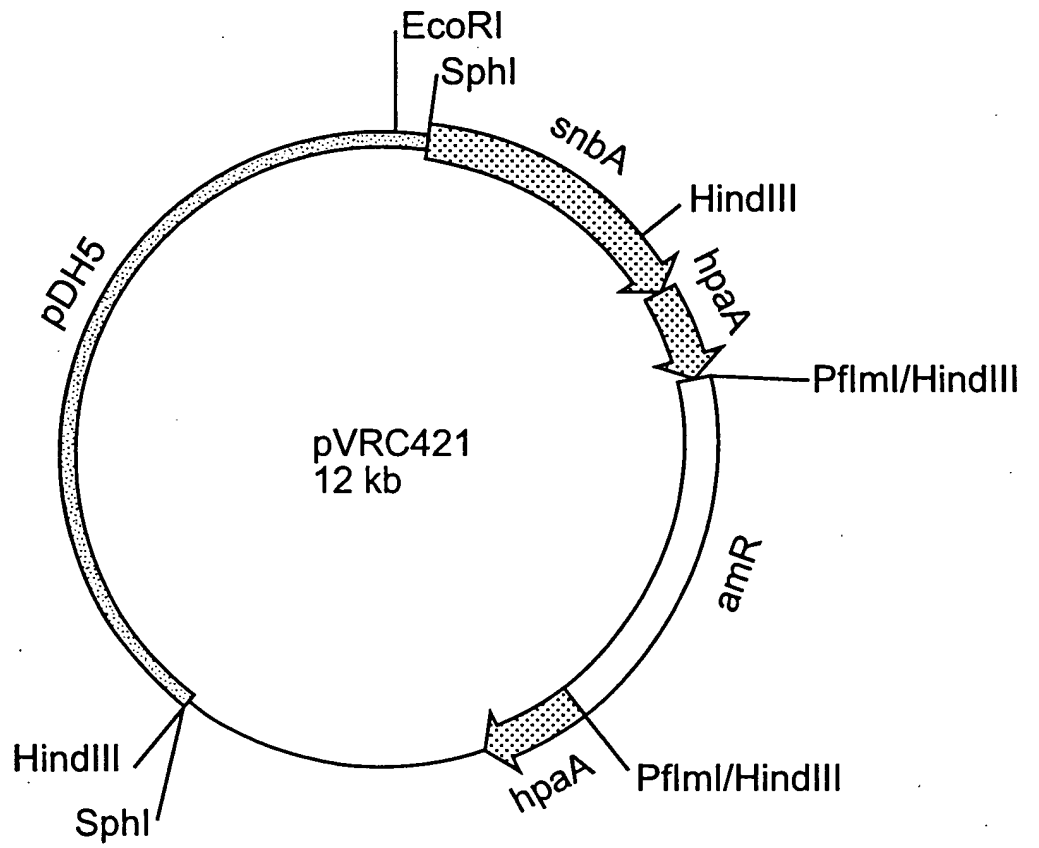


FIG. 11

FIG. 12

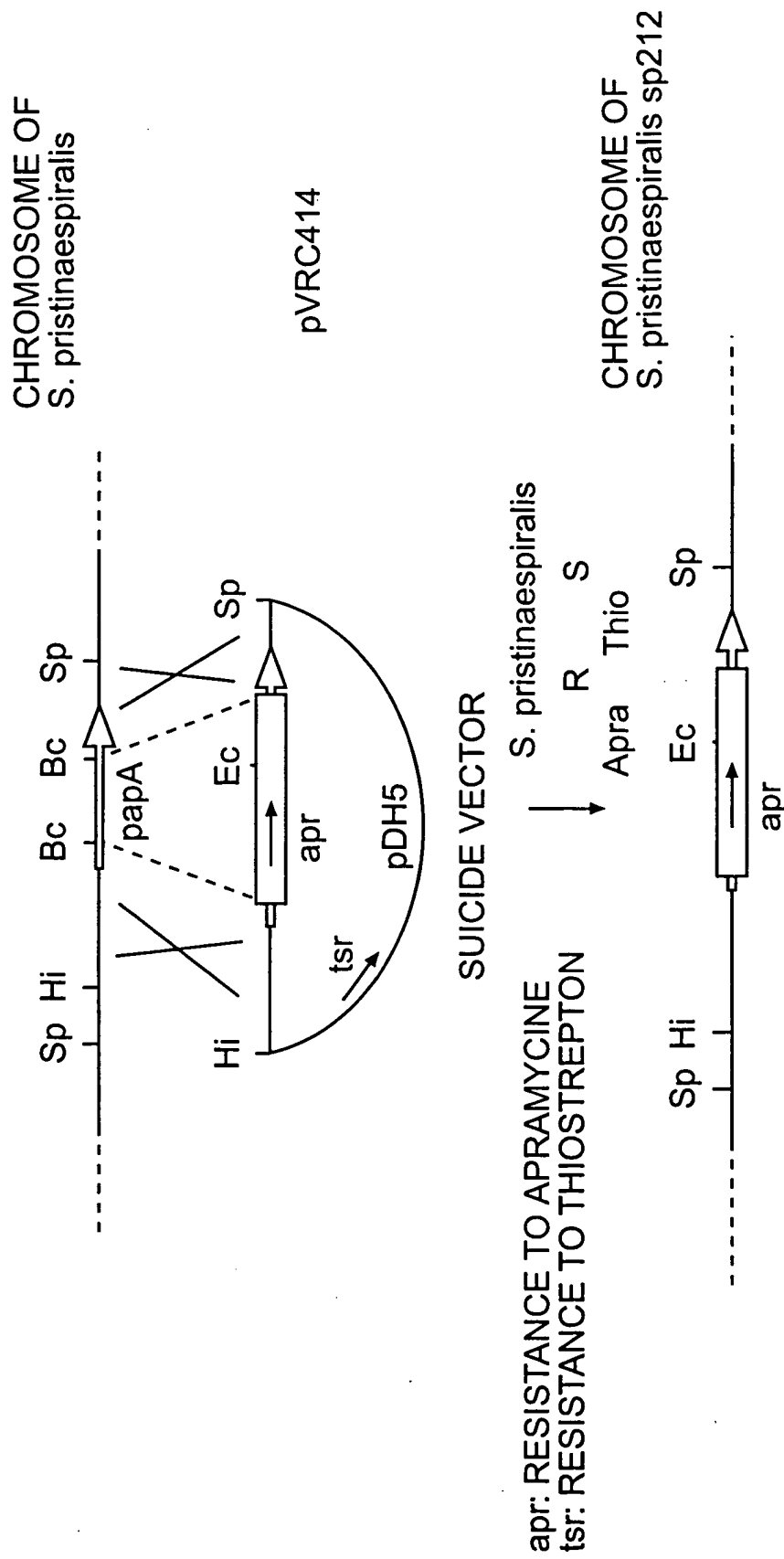


FIG. 13